Sam Ellis

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Experience

Present – SEP 2022 — **Graduate Data Analyst** — *Experian, Nottingham/Remote*

Completed two successful graduate rotations with:

- **Experian Data Insights Team (present)** — designed and developed interactive Tableau dashboards primarily using business data to help Experian understand the consumer market, and more.
- **Experian Business Data Team** — developed helper tools in Python to translate semi-formatted textual data to JSON format for ingestion into the Splunk cloud platform, designed and developed interactive Tableau dashboards which visualised this data to support next financial year strategies, and more.

JUN 2022 – JUN 2020 — **Trading Assistant** — *Sainsbury's, Nottingham*

General trading assistant during university summer breaks and throughout my MSc in Computer Science.

Education

DEC 2021 – SEP 2020 — **MSc Computer Science** — *University of Nottingham*

Graduated with a distinction (first-class equivalent).

Modules include: MSc Research Project; Conceptual Programming; Data Modelling and Analysis; Databases, Interfaces and Software Design Principles; and Systems and Networks.

JUN 2020 – SEP 2017 — **BEng Chemical Engineering** — *University of Birmingham*

Graduated with a first-class honours.

Modules include: Mass, Heat and Momentum Transfer; Principles of Process Control; Process Integration and Unit Operations; Product Design Exercises; and Sustainable Process Engineering.

AUG 2017 – SEP 2015 — **A-Levels** — *The South Wolds Academy and Sixth Form*

Achieved three A grades in biology, chemistry and maths and an A* grade in music.
Achieved subject award for exceptional performance in A-Level Chemistry.

Skills

Tools — AutoCAD, Git, Microsoft Excel, Snowflake, Splunk, Tableau.

Languages

Proficient — Python, SQL
Familiar — Go, Lua
Working Knowledge — TypeScript
Web — HTML, CSS, Angular2 (Familiar)

Projects

MSc Research Project 2021 — Conducted research centralised around the project topic 'Predicting Keystrokes using an Audio Side-Channel Attack and Machine Learning'. The project implemented a keylogger which could be used to map keystroke signals to their relevant keystroke emanation to generate a supervised dataset. Multiple datasets from different users were created and evaluated using state-of-the-art machine learning approaches. Key findings from this research included a keystroke recovery rate of up to 89% from a 40-key classification problem, and the use of a novel cross-prediction attack to significantly enhance recovery rate. I received a high first in this project.

Design Project 2020 — Designed a pectin manufacturing process capable of producing 142 tonnes of pectin per annum from raw waste orange peel. The project involved the completion of Hazard Studies 1, 2, and 3; an initial scheme report and mass/energy balance; data specification sheets; an oral presentation focusing on the pectin process design; cash-flow analysis detailing profits, operational costs, fixed costs, and capital costs; a complex Piping and Instrumentation Diagram; and an individual detailed design on a distillation column. I received a first in this project.

Automated Distillation Column Design 2020 — Designed an ethanol-recovery distillation column using MATLAB which called raw data from a group Excel spreadsheet, and used this to calculate essential design parameters for the column. These parameters would change depending on other members' design considerations being inputted into the spreadsheet. I received a first in this project.

(references available upon request)